Flameout in the Break

by Lt. Joel Becker

I was flying a mid-stage bounce, solo, with 18.2 hours in the T-45, when things fell apart.

"Attitude. Attitude! Trap, trap, trap," yelled my LSO as I jammed forward into the straps.

"Shut it down," he directed.

Having just lived the most exciting two minutes of my naval aviation career, many thoughts raced through my head as I watched the crowd of crash vehicles racing down the runway to meet me.

"Now I've done it," I muttered. " I'm never going to see those wings of gold now!"

Shaking a little bit, I slowly made my way out of the jet and saw my LSO approaching.

"What happened up there?" he asked.

I debriefed him as the crash truck gave me the "presidential" ride directly to the SDO's desk. The SDO walked me over to the computer, had me sit down, still in my flight gear, and start writing while everything was still fresh in my mind.

Here's part of my report.

We (our FCLP class of six students) had just departed and were in the process of reentering for the break. I was number two inbound for the carrier break on 13L with 300 knots, 800 feet. Echo 1, in front of me, did not break and had just called to say he was going around.

Echo 6 was just taking off and cleaning up to start his depart and reenter. Not far behind me, Echo 3, Echo 4, and Echo 5 were at 1,500 feet setting up for their breaks. I called the initial, thinking it was going to be a traffic mess in front of me.

Paddles told us to break at the numbers, which I interpreted as don't get down to the upwind end of the runway with the traffic mess. Never having hit the break at 300 knots at the numbers, I knew I had to put some G on the jet if I was ever going to get down and on speed for a good first pass.

The adrenaline started pumping and as fast as I ever had, I whipped the throttle back and threw out the boards and heard, "click."

"Did I hit the detent (flight idle stop)?" I wondered. Then I went right to the engine gauges, which showed I had flamed out.

Not knowing whether I could dead-stick it to the deck, I decided to make a right turn to the east where I wouldn't hit anything on the ground in case I didn't get the immediate airstart.

As I turned, I called, "Mayday," on paddle's frequency and cleaned up. With about 250 knots and 800 feet, I started to trade airspeed for altitude, but knew I couldn't get too high because my classmates were in the depart-and-reenter area at 1,500 feet. At about 1,000 to 1,200 feet and 230 knots, I decided to go for the immediate airstart, which worked. Waiting for the engine to spool up, I stayed around 1,200 feet and started to slowly turn to the southeast. I wanted to stay away from the people in the break heading for the initial.

By now, tower was calling out for the person turning right off the break, and I realized that my Mayday call must have gotten stepped on. I told paddles and tower about my flameout and relight, and they had the rest of the FCLPs delta. Paddles told me to make a precautionary approach and take the trap.

I started an easy left turn, northwest, and checked my engine instruments. I reset my generator and watched—the engine seemed to be working fine. I could see jets at different delta altitudes, so I stayed low (600 feet) and close to the field. Paddles was having a hard time picking me out, so I called the numbers at 17, and then made a left turn to parallel 13.

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Tower cleared me for the left low key, but I still had two jets overhead at around 1,500 and 3,000 feet. Tower directed them to climb, and once they were out of the way, I made a left turn for low key, and performed a PA for an arrested landing.

A month later at a safety stand-down, everyone had a good laugh at my story, but important information wasn't put out that I think could benefit others if they find themselves in the same situation.

The T-45 NATOPS (15.2, Airstart Procedures) says, "Engine flameout indications generally consist of falling RPM and EGT with corresponding reduction of thrust." You get these same indications every time you break, but if you've lost your engine, you'll eventually get associated master caution and warning lights. Unfortunately, by the time these lights clue you that you're a glider, you've probably bled off all of your airspeed. Your only option will be to eject because you'll be decelerating rapidly through 180 knots.

NATOPS says with an engine failure below 1,500 feet AGL and airspeed below 180 knots, you should eject. So, what told me I had lost my engine? The fuel-flow gauge and muscle memory.

My hand went too far back with the throttle, bypassing the flight-idle stop. I quickly checked my instruments: one second, RPM coming down, two seconds, EGT coming down, three seconds, zero fuel flow. The fuel-flow gauge is co-located with the RPM and EGT gauges. Use it! In my opinion, it's the quickest way to determine if you've lost your engine. If you haven't bled off too much airspeed, go for the immediate airstart.

Not only did the fuel-flow gauge save the day in the break, but also it came in handy two weeks later on a cross-country trip. We were descending through 35,000 feet over Asheville, N.C., when the same jet flamed out again! But that's another article.

Lt. Becker flies with VRC-40.